

WHAT IS CLAIMED IS:

1           1.    A method for testing, said method comprising:  
2           coupling one or more modified frame relay sub-  
3           interface entities internal to at least one  
4           network router with one or more corresponding  
5           data link layer entities internal to at least  
6           one unit under test.

1           2.    The method of Claim 1, wherein the unit under  
2           test is a computer system.

1           3.    The method of Claim 1, wherein said coupling  
2           one or more modified frame relay sub-interface entities  
3           internal to at least one network router with one or more  
4           corresponding data link layer entities internal to at  
5           least one unit under test further includes:  
6           connecting at least one physical data link between  
7           the at least one network router and the at  
8           least one unit under test.

1           4.    The method of Claim 3, wherein said connecting  
2           at least one physical data link between the at least one  
3           network router and the at least one unit under test  
4           further includes:  
5           coupling an input of a first data link to a first  
6           network router;  
7           coupling an output of the first data link to an  
8           input of switching logic; and  
9           connecting at least one output of the switching  
10          logic to an input of the unit under test.

1           5.    The method of Claim 1, wherein said coupling  
2 one or more modified frame relay sub-interface entities  
3 internal to at least one network router with one or more  
4 corresponding data link layer entities internal to at  
5 least one unit under test further includes:

6           connecting at least one aggregation unit between the  
7           at least one network router and the at least  
8           one unit under test.

1           6.    The method of Claim 5, wherein said connecting  
2 at least one aggregation unit between the at least one  
3 network router and the at least one unit under test  
4 further includes:

5           connecting an output of a first network router and  
6           an output of a second network router to an  
7           input of a first aggregation unit; and  
8           connecting an output of the first aggregation unit  
9           to the unit under test.

1           7.    The method of Claim 5, wherein said connecting  
2 at least one aggregation unit between the at least one  
3 network router and the at least one unit under test  
4 further includes:

5           coupling an output of an aggregation unit to an  
6           input of switching logic; and  
7           connecting at least one output of the switching  
8           logic to an input of the unit under test.

1           8.    The method of Claim 1, wherein said coupling  
2 one or more modified frame relay sub-interface entities  
3 internal to at least one network router with one or more

4 corresponding data link layer entities internal to at  
5 least one unit under test further includes:  
6 coupling at least one of the one or more modified  
7 frame relay sub-interface entities with at  
8 least one decryption-encryption service.

1 9. The method of Claim 1, wherein said coupling  
2 one or more modified frame relay sub-interface entities  
3 internal to at least one network router with one or more  
4 corresponding data link layer entities internal to at  
5 least one unit under test further includes:  
6 coupling at least one of the one or more modified  
7 frame relay sub-interface entities with at  
8 least one network layer entity.

1        10. A system for testing, said system comprising:  
2        one or more modified frame relay sub-interface  
3        entities internal to at least one network  
4        router coupled with one or more corresponding  
5        data link layer entities internal to at least  
6        one unit under test.

1        11. The system of Claim 10, wherein the unit under  
2        test is a computer system.

1        12. The system of Claim 10, wherein said one or  
2        more modified frame relay sub-interface entities internal  
3        to at least one network router coupled with one or more  
4        corresponding data link layer entities internal to at  
5        least one unit under test further includes:

6        at least one physical data link connecting the at  
7        least one network router with the at least one  
8        unit under test.

1        13. The system of Claim 12, wherein said at least  
2        one physical data link connecting the at least one  
3        network router with the at least one unit under test  
4        further includes:

5        an input of a first data link coupled to a first  
6        network router;  
7        an output of the first data link coupled to an input  
8        of switching logic; and  
9        at least one output of the switching logic coupled  
10       to an input of the unit under test.

1        14. The system of Claim 10, wherein said one or  
2 more modified frame relay sub-interface entities internal  
3 to at least one network router coupled with one or more  
4 corresponding data link layer entities internal to at  
5 least one unit under test further include:

6        at least one aggregation unit connected between the  
7                at least one network router and the at least  
8                one unit under test.

1        15. The system of Claim 14, wherein said at least  
2 one aggregation unit connected between the at least one  
3 network router and the at least one unit under test  
4 further includes:

5        an output of a first network router and an output of  
6                a second network router both connected to an  
7                input of a first aggregation unit; and  
8        an output of the first aggregation unit connected to  
9                an input of the unit under test.

1        16. The system of Claim 14, wherein said at least  
2 one aggregation unit connected between the at least one  
3 network router and the at least one unit under test  
4 further includes:

5        an output of an aggregation unit coupled to an input  
6                of switching logic; and  
7        at least one output of the switching logic coupled  
8                to an input of the unit under test.

1        17. The system of Claim 10, wherein said one or  
2 more modified frame relay sub-interface entities internal  
3 to at least one network router coupled with one or more

4 corresponding data link layer entities internal to at  
5 least one unit under test further includes:  
6 at least one of the one or more modified frame relay  
7 sub-interface entities logically coupled with  
8 at least one decryption-encryption service.

1 18. The system of Claim 10, wherein said one or  
2 more modified frame relay sub-interface entities internal  
3 to at least one network router coupled with one or more  
4 corresponding data link layer entities internal to at  
5 least one unit under test further includes:  
6 at least one of the one or more modified frame relay  
7 sub-interface entities logically coupled with  
8 at least one network layer entity.

1        19. An apparatus for testing, said apparatus  
2 comprising:  
3        means for coupling one or more modified frame relay  
4        sub-interface entities internal to at least one  
5        network router with one or more corresponding  
6        data link layer entities internal to at least  
7        one unit under test.

1        20. The apparatus of Claim 19, wherein the unit  
2 under test is a computer system.

1        21. The apparatus of Claim 19, wherein said means  
2 for coupling one or more modified frame relay sub-  
3 interface entities internal to at least one network  
4 router with one or more corresponding data link layer  
5 entities internal to at least one unit under test further  
6 includes:

7        means for connecting at least one physical data link  
8        between the at least one network router and the  
9        at least one unit under test.

1        22. The apparatus of Claim 21, wherein said means  
2 for connecting at least one physical data link between  
3 the at least one network router and the at least one unit  
4 under test further includes:

5        means for coupling an input of a first data link to  
6        a first network router;

7        means for coupling an output of the first data link  
8        to an input of switching logic; and

9 means for connecting at least one output of the  
10 switching logic to an input of the unit under  
11 test.

1 23. The apparatus of Claim 19, wherein said means  
2 for coupling one or more modified frame relay sub-  
3 interface entities internal to at least one network  
4 router with one or more corresponding data link layer  
5 entities internal to at least one unit under test further  
6 includes:

7 means for connecting at least one aggregation unit  
8 between the at least one network router and the  
9 at least one unit under test.

1 24. The apparatus of Claim 23, wherein said means  
2 for connecting at least one aggregation unit between the  
3 at least one network router and the at least one unit  
4 under test further includes:

5 means for connecting an output of a first network  
6 router and an output of a second network router  
7 to an input of a first aggregation unit; and  
8 means for connecting an output of the first  
9 aggregation unit to the unit under test.

1 25. The apparatus of Claim 23, wherein said means  
2 for connecting at least one aggregation unit between the  
3 at least one network router and the at least one unit  
4 under test further includes:

5 means for coupling an output of an aggregation unit  
6 to an input of switching logic; and  
7 means for connecting at least one output of the  
8 switching logic to an input of the unit under  
9 test.



1           26. The apparatus of Claim 19, wherein said means  
2 for coupling one or more modified frame relay sub-  
3 interface entities internal to at least one network  
4 router with one or more corresponding data link layer  
5 entities internal to at least one unit under test further  
6 includes:

7           means for coupling at least one of the one or more  
8           modified frame relay sub-interface entities  
9           with at least one decryption-encryption  
10          service.

1           27. The apparatus of Claim 19, wherein said means  
2 for coupling one or more modified frame relay sub-  
3 interface entities internal to at least one network  
4 router with one or more corresponding data link layer  
5 entities internal to at least one unit under test further  
6 includes:

7           means for coupling at least one of the one or more  
8           modified frame relay sub-interface entities  
9           with at least one network layer entity.

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